

#### LA-UR-14-24819

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Title: Maintenance Connection (MC) MC Tablet Hybrid Software Training for BMP

Inspections

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# **Maintenance Connection (MC)**

## MC Tablet Hybrid Software Training for **BMP** Inspections

July 1, 2014





#### **Training objectives**

- To provide an overview of the MC Tablet Hybrid software.
- To communicate the new procedure EP-DIV-SOP-20224.
- To communicate changes in Work Order (WO) generation and distribution.
- To provide step-by-step process for electronic WO data entry for control measure inspection forms.





## What is MC Tablet Hybrid?

- Offline windows based software option for use with MC.
- Stores a snapshot of MC.
  - Your electronic view of the WO looks like what we see in MC.
- Allows electronic data entry of WOs, which can be directly uploaded into MC.
- Panasonics Toughbooks will be used to run software.
  - Wireless capability has been disabled and can only be connected to the yellow network at any Ethernet port in TA-00 Bldg 1237 (Pueblo Complex).
  - Route Leads will be assigned a SecureDoc account and a LANL WIN domain account.





#### Why Are We Using MC Tablet Hybrid?

- Process Improvement Projects
  - **-** 2011
    - Decrease Maintenance Cycle Time for Storm Water Control Measures
  - -2012
    - 7-Day Holding Time Sample Retrieval and Analysis Process
    - Telemetry Improvement Project
  - -2013
    - Field Based PV Charging of Automated Samplers
  - -2014
    - Work Order Data Management Process





# Work Order Data Management Process Improvement Project Overview

- The purpose of this process improvement is to ultimately go "paperless".
  - All prepopulated information on the hard copy form is stored in MC.
  - WOs are currently issued in MC and distributed in hard copy form.
  - During the 2014 field season WOs for a select number of Site Monitoring Areas (SMA) per Route will be issued in MC and distributed both electronically via MC Tablet Hybrid and in hard copy form.
    - Inspectors will use EP-DIV-SOP-20224 for BMP inspections at those SMAs. EP-DIV-SOP-20012 will still apply for the rest.
  - In future field seasons all WOs will be distributed electronically.





# EP-DIV-SOP-20012 to EP-DIV-SOP-20224 Changes, Page 1

	<b>a</b>
SOP-20012-1 Post-Storm Control Measure Inspection	SOP-20224-1 Post-Storm Control Measure Inspection
Work Order ID: BMP-32029 Project ID: P-BMP-3171	Work Order ID: BMP-32029 Project ID: P-BMP-3171
IP-RG-NCOM : R004 : R-SMA-2.05	IP-RG-NCOM : R004 : R-SMA-2.05 Date: Time:
Project: Tablet Hybrid BMP inspection example Name/Z#:	
Rain Event: 6/18/2014 Name/Z#:	Rain Event: 6/18/2014 Name/Z#:
Target Date: 7/4/2014 Lead Signature:	Target Date: 7/4/2014 Lead Signature:
Map ID: 1, R004-13-0006-08-R2.05-R3 "I confirm the information as recorded is true. accurate and complete."	"I confirm the information as recorded is true, accurate and complete."
Reason: MC tablet control measure maintenance test  Describe: (continue on back if needed)	Site Map Review, if Yes, submit altered Site Map.
Is RMP 1. Note "No Action Recommended" (NAR), or identify needed	
maintenance, modification, repair, or replacement. 2. If needed, identify correct location of BMP(s) on Site Map.	Have you changed the location of a BMP on the Site Map? ☐ Yes ☐ No
Operating   Oper	
(BMP)/Control Measure On Arrival? Recommended? Map? Affection and to BMP describe.	Have you ammended the Site Map in any other way?
Established Vegetation	
[R00402040005] , ROF EC	Control Measure Review. Note "No Action
Replacement	Recommended" (NAR), or describe recommended action in task comment line.
Juniper Bales [R00406030002] . ☐ Yes ☐ No ☐ No ☐ Yes ☐ No No Action Recommended: ☐ Action Recommended:	Established Vegetation [R00402040005] Is BMP Operating
Thepair Replacement	effectively on arrival? If no, describe existing or installed Action Recommended: backup control. ROF EC
Juniper Bales [R00406030003] . □Yes □No □No □Yes □No No Action Recommended: □	Established Vegetation [R00402040005] Is maintenance,
ROF SC	modification, repair, or replacement recommended or conducted at inspection? If yes, identify. ROF EC
□ Repair □ Replacement	Established Vegetation [R00402040005] Is BMP correctly   Tyes   No   No Action Recommended:
	docated on Site Map? If no, identify correct location on  Action Recommended:  Site Map. ROF EC
	Juniper Bales [R00406030002] Is BMP Operating
	effectively on arrival? If no, describe existing or installed Action Recommended:  backup control, ROF SC
	Juniper Bales [R00406030002] is maintenance,
	modification, repair, or replacement recommended or Action Recommended:
	conducted at inspection? If yes, identify. ROFSC
	Juniper Bales (R00406030002) is BMP correctly located on Site Map? If no, identify correct location on Site Map.  Action Recommended: Action Recommended:
	ROF SC
	Juniper Bales [R00406030003] is BMP Operating ☐ Yes ☐ No Action Recommended: ☐ Action Recommended: ☐
	backup control. ROF SC

Each Control measure will now have three question lines



# **EP-DIV-SOP-20012 to EP-DIV-SOP-20224 Changes, Page 2**

					_
SOP-20012-1 Post-St	torm Control	Measure Inspection		SMA Controls. Note "NAR", or describe recommended action in task comment line.	
Work Order ID: BMP-32029		Project ID: P-BMP-3171			
Have you changed the location of a BMP on the Site Map?	☐Yes ☐No If Yes, submit all	tered Site Map with this form.		Is there evidence of floatable waste, floatable garbage, or States evidence of floatable waste, floatable debris within the SMA that could be discharged to receiving waters?  No Action Recommended: Action Recommended:	
Have you amended the Site Map in any other way?	☐Yes ☐No If Yes, submit all	tered Site Map with this form.		Los Alamos National Laboratory Page 1 of 2 for BMP-32	02:
SMA/Site Review			╗╟	/	_
is there evidence of floatable waste, floatable garbage, or floatable debris within the SMA that could be discharged to receiving waters?	Yes •No	No Action Recommended:  Action Recommended:		SOP-20224-1 Post-Storm Control Measure Inspection	
Is there evidence of dust generation or evidence of off-	☐Yes ☐No	No Action Recommended:		Work Order ID: BMP-32029 Project ID: P-BMP-3171	
site vehicle tracking of raw, final, or waste materials or sediments?		Action Recommended:		Is there evidence of dust generation or evidence of off-   site vehicle tracking of raw, final, or waste materials or   Action Recommended:     Action Recommended:	
Is there evidence of the introduction of raw, final, or waste material to the SMA?	on of raw, final, or Sediments?	sediments?			
master material to the similar		Account to the control of the contro		Is there evidence of the introduction of raw, final, or Yes No No Action Recommended:	
Has there been an increase in erosion potential at the SMA since the last inspection?	☐Yes ☐No	No Action Recommended: □ Action Recommended:			
Mortar Impact Area [00-011(C)] Has there been an increase in erosion potential at the Site since the last	□Yes □No	No Action Recommended: ☐ Action Recommended:			
ospection?				Mortar Impact Area [00-011(C)] Has there been a ☐ Yes ☐ No Action Recommended: ☐	_
Photo Taken?: ☐ No ☐ Yes Photo ID:	Dee   No   Pres   No   Note   No Action Recommended of (ARA), or describe action recommended below.   Page 1 of 2 for BMP-32025				
Major Observations:				Photo Taken?: ONO Yes Photo ID:	_
				Major Observations:	_
				-	_
					_
		Continuation Form:	Yes 🗆 No	<u>-</u>	_
Certification Statement of Authorization					_
		ny direction or supervision in accordance with a system designed to assure that quali		Continuation Form: □Yes □	NO

 The questions regarding map changes have moved to the first page.

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#### What Is The New WO Distribution Process?

- An account in MC will be set up for each Route.
- Each Route will be assigned the following:
  - A Toughbook installed with MC Tablet Hybrid software and an executable backup batch file.
  - A flash drive that the executable batch file will be routinely saved to throughout the work day.
- Hard copy WO distribution will continue as in previous years.
- Route Leads will need to connect their Toughbook to the yellow network daily to synchronize ('sync') with MC.





# What Is The New WO Distribution Process? (Continued)

During the sync any WOs that have been issued in MC to the Route since the last connection will be downloaded to the Toughbook. Any work on the Toughbook that have been placed in a "completed" status will be uploaded from the Toughbook back to MC.





#### **Tablet Hybrid tutorial**

- Connect to the yellow network using open Ethernet ports in the Pueblo Complex.
- Route Leads will log in using their unique secureDoc and WIN account passwords.
- Open the Tablet Hybrid program by clicking on the shortcut icon.



Log in using the Route's Member ID and password





## **Tablet Hybrid Home Page**

 Menu: Access work order page, Asset page, Update base data, or return to Home page.



- Sync: Synchronize tablet hybrid software with Maintenance connection.
- Previous/Next: Use these buttons to scroll through calendar on Home page.
- Display: Displays WOs by either target date or assign date.
  - It is recommended to always leave this selection on target date.

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## **Tablet Hybrid Home Page Continued**

#### Menu Dropdown:

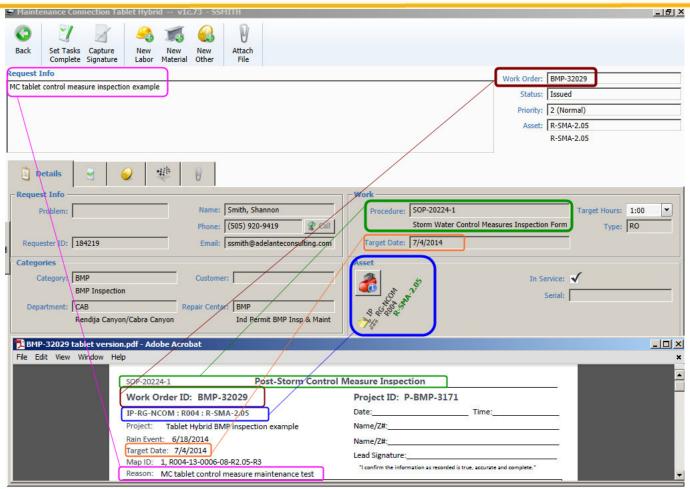
- 'Home' will return to the calendar (home page).
- Work Orders' will list all work orders currently sync'd to the device.
- 'Assets" will go to the asset hierarchy.
- 'Update Base Data' sync's any specification or equipment configuration changes that have occurred in MC. This should be done on a weekly basis while connected to the yellow network.
- Forget Automatic login will reset the login preferences.
- 'Release All Work Orders' will upload all work orders back to MC regardless of status.





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# Work Order Details Page Crosswalk to Hard Copy



Click on the racecar icon

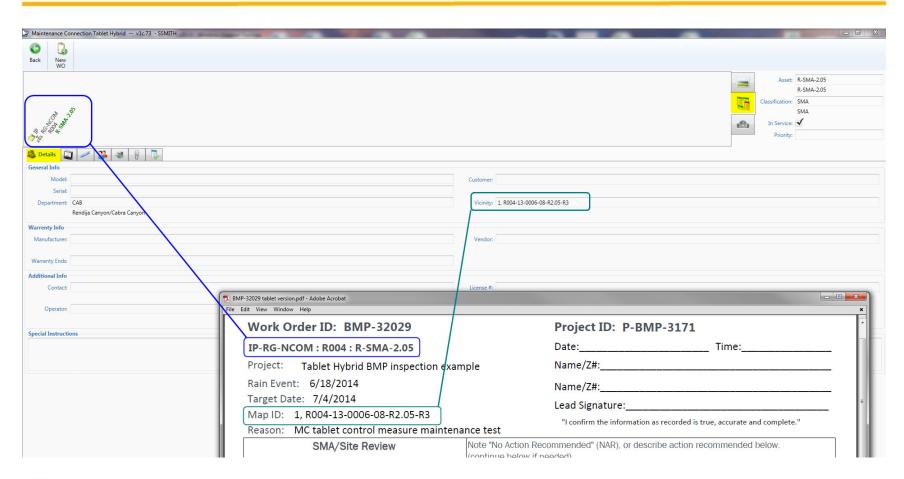


to open the asset details page.



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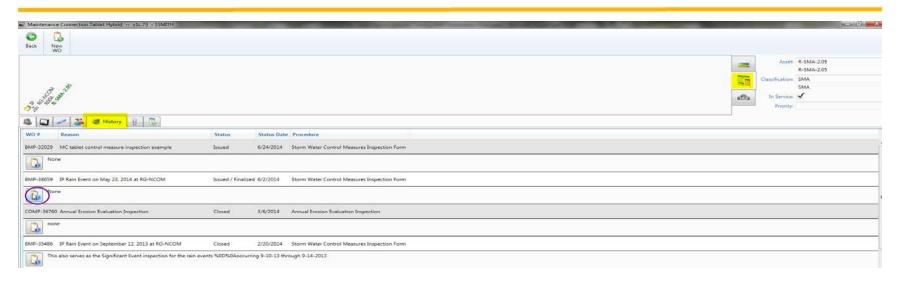
## **Asset Details Page Crosswalk to Hard Copy**





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## **Asset History Page**



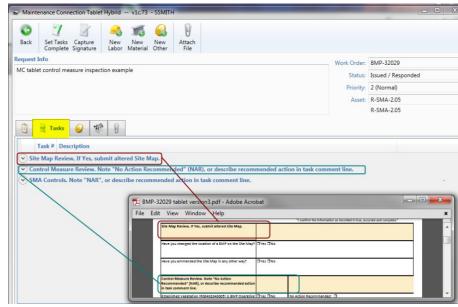
- Quick view of previous inspections to the Asset (SMA) including finding written in the labor report (hard copy additional notes section)
- Click on the clipboard icon for detailed view of previous work orders.
- Use the button to return to the Asset details of the current WO.





#### **Work Order Tasks Overview**

- Click on the Tasks tab to open the tasks.
- Each task that is on the hard copy will be displayed. Distinct task are displayed in alternating white/grey on the electronic version.
- Section headers on the hard copy are also section headers in MC.

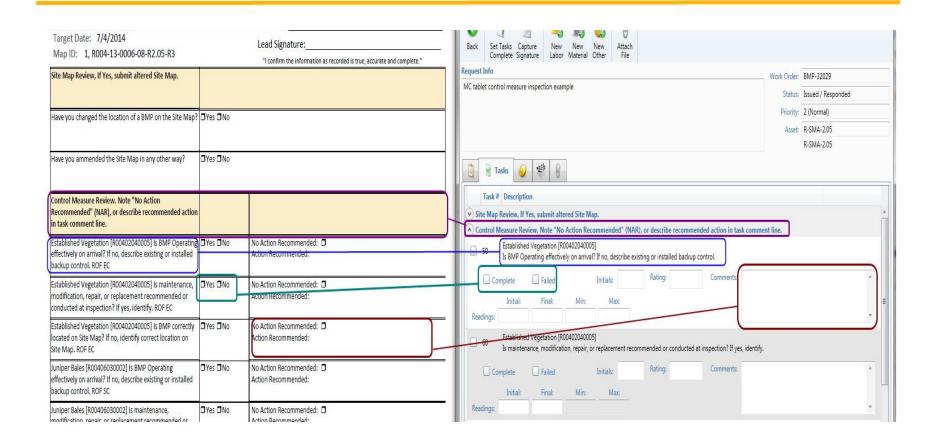


Use the | button to minimize/maximize tasks within sections.





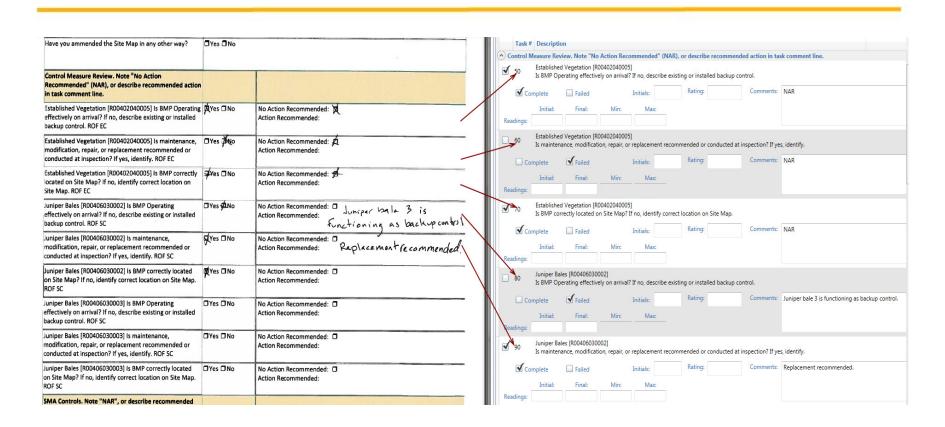
## Inspection Tasks Crosswalk – Page 1







# **Inspection Tasks Data Entry Example -Page 1**





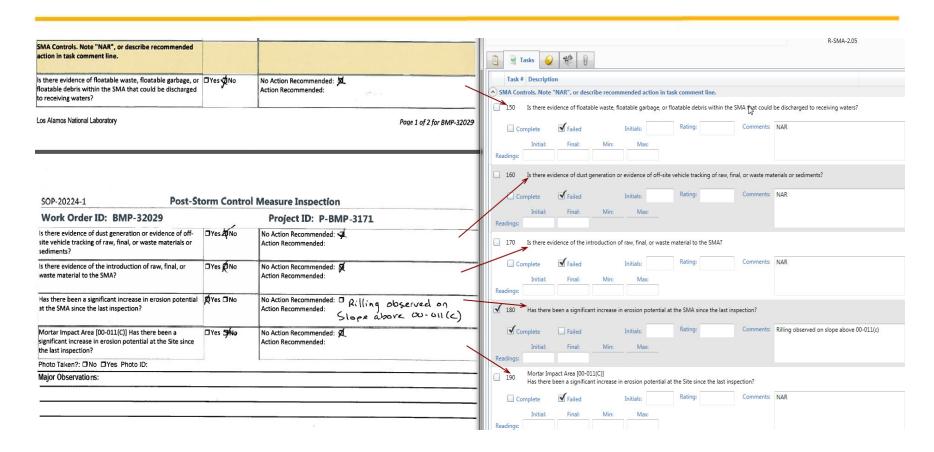


## **Inspection Tasks Crosswalk – Page 2**

SMA Controls. Note "NAR", or describe recommended		Site Map Review, If Yes, submit altered Site Map.
action in task comment line.		Site map review, it res, submit affected site map.  Control Measure Review. Note "No Action Recommended" (NAR), or describe recommended action in task comment line.
Is there evidence of floatable waste, floatable garbage, or □Yes □No	No Action Recommended: □	SMA Controls. Note "NAR", or describe recommended action in task comment line.
floatable debris within the SMA that could be discharged	Action Recommended:	150 Is there evidence of floatable waste, floatable garbage, or floatable debris within the SMA that could be discharged to receiving waters?
to receiving waters?		Complete Failed Initials: Rating: Comments
Los Alamos National Laboratory	Page 1 of 2 for BMP-320.	
		Readings:
		160 Is there evidence of dust generation or evidence of off-site vehicle-tracking of raw, final, or waste materials or sediments?
SOP-20224-1 Post-Storm Cont	rol Measure Inspection	Complete Carillad Tainting Rating: Comments:
Work Order ID: BMP-32029	Project to: P-BMP-3171	Complete Palled Mulais.
Is there evidence of dust generation or evidence of off- site vehicle tracking of raw, final, or waste materials or sediments?	NO Action Recommended:  Action Recommended:	Initial: Final: Min: Max: Readings:
Is there evidence of the introduction of raw, final, or Yes No	No Action Recommended: □	170 Is there evidence of the introduction of raw, final, or waste material to the SMA?
waste material to the SMA?	Action Recommended:	Complete Failed Initials: Rating: Comments:
Has there been a significant increase in erosion potential  Yes No	No Action Recommended: □	Initial: Final: Min: Max:
at the SMA since the last inspection?	Action Recommended:	Readings:
Mortar Impact Area [00-011(C)] Has there been a ☐Yes ☐No	No Action Recommended: □	180 Has there been a significant increase in erosion potential at the SMA since the last inspection?
significant increase in erosion potential at the Site since the last inspection?	Action Recommended:	Complete Failed Initials: Rating: Comments:
Photo Taken?:   No Yes Photo ID:	-	Initial: Final: Min: Max:
Major Observations:		Readings:
		190 Mortar Impact Area [00-011(C)] Has there been a significant increase in erosion potential at the Site since the last inspection?
		Complete Failed Initials: Rating: Comments:
	Continuation Form: Tyes On	No Initial: Final: Min: Max:



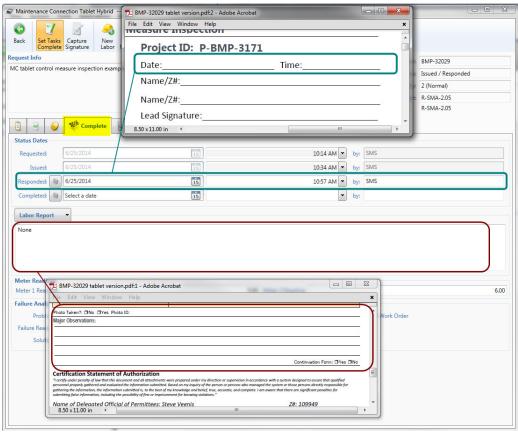
# **Inspection Tasks Data Entry Example – Page 2**





## **Completing the Work Order Crosswalk**

After you have completed data entry click the Complete tab.



Only fill out the "Completed" fields if you are done with all date entry.





## Completing the Work Order Crosswalk (Cont'd)

- Click on the buttons to auto-populate the Responded and Completed date and time fields. You can navigate through the fields to adjust as necessary.
- The "Responded" date must be the same date and time as what is written on the hard copy (i.e. date of inspection) and initials of the individual who signed the hard copy.



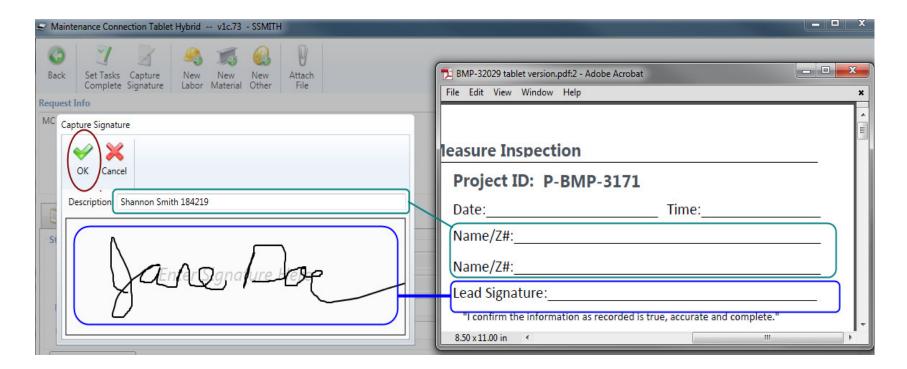


## **Signing the Work Order**

Click the



icon to electronically sign the work order.





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## **Exiting the Work Order**

 Click on the back button order page.



### to return to the main work

 If the work order is in "completed' status, unanswered tasks are not allowed (this includes "N/A").
 If any exist you will see the following error.



You must navigate back to the lasks, then click on the back button.





#### Releasing a Work Order

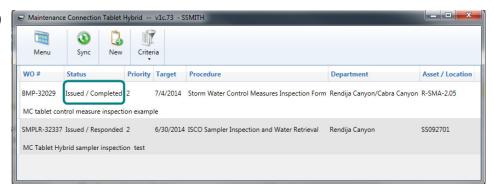
- Connect to the yellow network and navigate back to the work order page by choosing the property option from the menu dropdown.
- Confirm that only the work orders you are ready to release are in the Issued/Completed status.
  - Any work order in Issued/Completed status will be uploaded to MC during the sync.
  - Any data entry done on work orders in Issued or Issued/Responded status will sync to MC, but the work order will remain downloaded on the tablet.





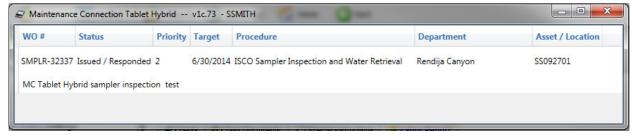
#### Releasing a Work Order Continued

 Click the Sync button to start the data transfer.



 Close the browser window in the upper right corner to exit out of MC Tablet

Hybrid.







#### What's next?

- Each Route team will need to request an account in Maintenance Connection by going to: <a href="http://envweb.lanl.gov/mc\_web/onsite/default.htm">http://envweb.lanl.gov/mc\_web/onsite/default.htm</a>
- Click on Would you like to Sign Up? Click Here at the bottom of the page.
- Choose 

   I am NOT a Member of the Maintenance Connection.
   and click OK.
- The Connection Key is 'LANL'. Click OK.
- Fill out all required information on the Sign Up page.
  - The Member ID and password you choose will be used by all Route members.
  - Choose 'Ind Permit BMP Insp & Maint' from the Repair Center dropdown.
- Click OK.



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#### **Available Resources**

- Project team members will be available to participate at inspections/during data entry.
- EP-DIV-SOP-20224 will be added to your training requirements.
- A field guide will be provided to help trouble shoot issues.



